PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 058268.00325
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed Name _____	Application Number: 10/716,529 Filed: November 20, 2003
	First Named Inventor: Cheng-Liang (Andrew) HOU
	Art Unit: 2619 Examiner: Wutchung CHU

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐ Applicant/Inventor.

☐ assignee of record of the entire interest.
    See 37 CFR 3.71. Statement under
    37 CFR 3.73(b) is enclosed

☒ Attorney or agent of record.
    Registration No. 52,738

☐ Attorney or agent acting under 37 CFR 1.34.
    Reg. No. is acting under 37 CFR 1.34 _____

_____ REG. No. 46,621
                          Signature

_____
Brad Y. Chin
Typed or printed name

_____
703-720-7823
Telephone number

_____
March 11, 2008
Date

NOTE: Signatures of all of the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐   *Total of _____forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Cheng-Liang (Andrew) HOU	Art Unit: 2619
Application No.: 10/716,529	Examiner: Wutchung CHU
Filed: November 20, 2003	Attorney Dkt. No.: 058268.00325

For: SYSTEM AND METHOD FOR LINKING LIST TRANSMIT QUEUE
MANAGEMENT

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450   March 11, 2008
Alexandria, VA 22313-1450

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette, Applicant hereby submits this Pre-Appeal Brief Request for Review of the final rejections of claims 1-17 in the above identified application. Claims 1-17 were finally rejected in the Office Action dated December 11, 2007 ("Final Office Action"). Applicant filed a Response to the Final Office Action on February 11, 2008 ("Applicant's Response"), and the Office issued an Advisory Action dated March 6, 2008 ("Advisory Action"), maintaining the final rejections of claims 1-17. Applicant hereby appeals these rejections and submits this Pre-Appeal Brief Request for Review. A Notice of Appeal is filed timely concurrently herewith.

Applicant respectfully submits that the cited prior art reference fails to disclose or suggest every feature recited in claims 1-17, thereby rendering the prior art rejections clearly erroneous. Applicant's Response presented arguments demonstrating the Office Action's failure to demonstrate that Rusu discloses or suggests every feature recited in claims 1-17. Therefore, Applicant respectfully requests reconsideration of the arguments presented in Applicant's Response and submitted herewith, and respectfully submits that claims 1-17 are in condition for allowance.

Claims 1-17 were rejected claims 1-17 under 35 U.S.C. §102(b) as being allegedly anticipated by Rusu, *et al.* (U.S. Patent No. 6,137,807) ("Rusu"). The Final Office Action asserted that Rusu discloses or suggests every feature recited in claims 1-17. Applicant respectfully submits that these rejections contain at least the following clear error and should be withdrawn. As outlined below, Rusu fails to disclose or suggest every feature recited in claims 1, 8-10, and 16-17, and the claims that depend therefrom.

Rusu is directed to communication switches and data storage systems for use therewith. Rusu is also directed to a multiple queue bank balanced queue control system architecture (Abstract; col. 1, lines 30-52).

Applicant respectfully submits that Rusu fails to disclose or suggest every feature recited in claims 1, 8-10, and 16-17. Specifically, each independent claim, in part, recites, "determining an address of a free entry in a queue; placing the determined address in an entry of a prior-determined address in the queue to form a linking list."

In the Office Action, it is asserted that Rusu discloses "placing the determined address in an entry of a prior-determined address in the queue to form a linking list," citing Figure 5, box 365 – update link list for that queue, column 3, lines 38-39 and lines 51-53, and column 4, lines 55-57. In the *Response to Arguments*, the Office Action cited column 3, lines 32-46, to further assert that Rusu discloses the aforementioned claim features (See Final Office Action at pages 2-3 and 12-13).

In the Advisory Action, column 3, lines 37-38, and column 4, lines 58-61 are cited to further assert that Rusu discloses the aforementioned claim features. Specifically, the Advisory Action asserted that Rusu discloses a control number which indicates a start of a packet, an end of a packet, a normal cell in a packet, and abort, asserting that these teachings correspond to determining an address of a free entry in a queue. The Advisory Action cited column 4, lines 58-61, to further assert that this control portion is established by the queue controller and contains link list pointers (or address) of the data. The Advisory Action cited column 4, lines 58-67, to further assert that it was inherent for an entry to be a prior-determined address, and the link list is used to enable this operation for keeping track of the mapping relationships. The Advisory Action concluded that this

control number/address keeps track of the mapping relationships, and thus meets the limitations recited in the claims (See Advisory Action on page 3).

Rather, Rusu discloses a queue number, which is a 14 bit tag, indicating which queue memory bank (130, 131) a packet will be stored in (Rusu, col. 3, lines 35-37). Rusu further discloses that each internal cell as output by the input processors (101, 102) is assigned a queue number by the queue controller (140). The queue number is appended to the respective cells by the input processors (101, 102) and placed in a routing tag field within each cell (Rusu, col. 4, lines 11-16).

In Figure 5, Rusu further discloses that the queue controller (140) defines a memory location where the prepared cell will be sent based on the current queue memory bank (130, 131) availability, and if both banks are available, the bank chosen is that bank having the most available free memory space. If a memory bank (130 or 131) is currently in use, the queue controller (140) sends the prepared cell to the idle bank not in use. The dual bank queue memory system of Rusu allows for concurrent reading and writing to memory. Rusu further discloses that data in the memory banks (130, 131) is maintained in the form of queues on a FIFO (first in, first out) basis, organized by a link list (102) maintained by the queue controller (140) with the control memory (145). Rusu further discloses that the link list (102), maintained by the queue controller (140), organizes data stored in the available queue memory banks (130, 131) (Rusu, col. 4, lines 32-57). Hence, Rusu fails to disclose or suggest that the "queue number" is placed in an entry of a prior-determined address in the queue to form a linking list (emphasis added).

Furthermore, Applicant respectfully submits that the Office Action's arguments presented in the *Response to Arguments* fail to demonstrate that the "queue number," which the Final Office Action referred to as the "determined address" (see page 2 of the Final Office Action, second bullet) is placed "in an entry of a prior-determined address in the queue to form a linking list" (emphasis added) as recited in the claims. As noted in the Final Office Action, a Multicast Mask, which is a 46 bit attachment, is attached to a packet for indicating that the packet can be transmitted or routed anywhere. The queue controller uses a two-stage Multicast Mask for selecting an output processor (160, 161) and for utilizing geographically distributed bits for geographically designating that a

packet of interest is geographically limited as to transmission (Rusu, col. 3, lines 39-46). Rusu further discloses a Control Number, which is a 2-bit tag that indicates the start of a packet, end of a packet, and a normal cell in packet (Rusu, col. 3, lines 37-39). Rusu further discloses that data in the memory banks (130, 131) is maintained in the form of queues on a FIFO basis, organized by a link list (120) maintained by the queue controller (140) (See Figure 2); however, Rusu fails to discloses that the "queue number" is placed "in an entry of a prior-determined address in the queue to form a linking list" (emphasis added) as recited in the claims.

Furthermore, on page 2 of the Office Action, the "queue number" is referred to allege that Rusu discloses the "determined address," and subsequently refers to the "Multicast Mask is a 46 bit attachment" to assert that Rusu discloses the "placing the *determined address* in an entry of a prior-determined address in the queue to form a linking list" (See Office Action on pages 2-3 – third bullet). Therefore, the Office Action improperly refers to two separate elements to improperly allege that Rusu discloses the aforementioned features recited in claims 1, 8-10, and 16-17.

Furthermore, Applicant respectfully submits that the Office's arguments presented in the Advisory Action fail to demonstrate that the "queue number," which the Office Action referred to as the "determined address" (see page 2 of the Office Action, second bullet) is placed "in an entry of a prior-determined address in the queue to form a linking list" (emphasis added) as recited in the claims.

Contrary to the assertions made in the Advisory Action, Rusu merely discloses that the control number is a 2-bit tag indicating information about a start, end, and a normal cell of a packet, not either of the queue memory banks (130, 131). Furthermore, the control header of a cell in a queue memory is established by the queue controller, whereby the control header includes link list pointers (or address) of the data (See Figure 7). Although the link list may be used to enable the operation of linking a header portion of a data cell stored in one queue memory to a tail portion stored in another queue memory; Rusu fails to disclose or suggest that the linking list, the control header ("control portion" referred to in the Advisory Action), or the control number, alone or in combination, discloses that the "queue number" (referred to as the "determined address"

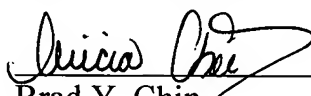Application No. 10/716,529

in the Final Office Action) is placed "in an <u>entry of a prior-determined address</u> in the queue to form a linking list" (emphasis added) as recited in the claims. The Advisory Action asserted that it would have been "inherent for an entry to be a prior-determined address," citing column 3, lines 37-38. As previously noted, a review of these passages demonstrates that Rusu is referring to a control number for the start, end, and a normal cell of a <u>packet</u>, not either of the queue memory banks (130, 131).

Furthermore, Applicant respectfully submits that it is a clear error for the Office to rely upon the theory of inherency without providing a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art (See MPEP §2112).

Accordingly, the Office Action's rejections of claims 1-17 under 35 U.S.C. §102(b) based on the teachings of Rusu is a clear error for at least the reasons discussed above. Therefore, claims 1, 8-10 and 16-17, and the claims that depend therefrom, should be in condition for allowance. Accordingly, these rejections should be summarily reversed.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

Brad Y. Chin
Registration No. 52,738

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802
Enclosures: PTO/SB/33 Form
            Notice of Appeal
            Check No. <u>18320</u>